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ABSTRACT

This paper provides evidence for the reliability and validity of the Preventive Coping Resources Inventory (PCRI) instrument designed to measure coping resources useful for prevention based on previous research. It specifically looks at the construct validity of the PCRI; the convergent and discriminate validity of the PCRI with related constructs; and the criterion-related validity of the PCRI as a predictor of perceived stress levels and symptomatology. Data was collected from 252 undergraduate students from a large Southwestern university. Analysis conducted supported the construct validity of three of the six hypothesized preventive resources: perceived control, self-confidence, and social comfort. Further analysis is needed to determine whether the three scales (self-acceptance, organization, humor) that were not supported in the factor analysis should be included as dimensions of preventive coping resources. In general, the factor and scale scores of the PCRI correlated with higher coping resources than with other closely related constructs. Overall, findings suggest that the PCRI may provide meaningful factors useful for preventive coping such as perceived control, self-confidence, and social comfort. Further exploration is needed to determine if the scales of the PCTI are distinct from other coping instruments in measuring resources that are most useful for prevention. (Contains 53 references.) (JDM)

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RUNNING HEAD: Factor structure of the PCRI

# Factor structure of the Preventive Coping Resources Inventory and its relationship to existing measures of stress and coping

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*A 6.8 magnitude earthquake, originating 30 miles below the earth near Olympia, Washington, rocked the city of Seattle at 10:54 a.m. Wednesday, February 28, 2001. While 400 people suffered mostly minor injuries and billions of dollars in damage occurred, no lives were lost. This stands in stark contrast to the toll exacted by the 7.7 magnitude earthquake that struck Gujarat, India on January 26, 2001: more than 20,000 people were confirmed dead and thousands more were believed to be buried in the rubble of whole towns and villages. While scientists and city planners believe that Seattle was spared mostly because the quake occurred 33 miles underground, efforts by U.S. authorities to ensure that buildings are made to withstand seismic events in the quake-prone West Coast and that the public is educated about what to do during an earthquake played an important role (Harish, 2001); comparable efforts had not been undertaken in India.*

These contrasting events support the old adage that an ounce of prevention is worth a pound of cure; few would argue that efforts at prevention are just as important for psychological and emotional well-being. However, although the fields of both counseling psychology and counselor education have strong historical and philosophical roots in the prevention of human dysfunction, in practice prevention does not play a prominent role (Romano & Hoge, 2000). The reasons for this neglect are numerous and familiar, beginning with the fact that most training programs more or less follow a medically-oriented remedial model of mental health that emphasizes the individual treatment of psychopathology (Albee, 2000). This approach is reinforced by accreditation boards that regulate professional training programs as well as the institutions and agencies that provide counseling services (Roch & Sadoski, 1996).

While it is widely accepted that the ability to cope with stress is an important determinant of one's health and well-being (Matheny Aycock, Pugh, Curlette and Canella, 1986), the role of prevention in coping has been similarly overlooked (McCarthy, Lambert, & Brack, 1997). The matter is made more complex by the fact that the construct of coping is not monolithic. Varied definitions of coping processes exist and probably reflect the varied ways in which individuals attempt to deal with a given stressor (Carver, Scheier, & Weintraub, 1989). Several theorists have suggested that prevention should be considered as one important aspect of coping. For example, Antonovsky (1979) emphasized the importance of "generalized resistance resources" that can be useful in preventing demands from becoming stressors, and Greenglass and Burke (1991) and Ogus (1992) have advanced similar notions. More recently, Aspinwall and Taylor (1997) defined proactive coping as the processes through which people anticipate or detect potential stressors and act in advance to prevent them or lessen their impact.

Matheny et al. (1986) conducted a comprehensive meta-analysis of the stress literature and based on this review suggested an integrative model of stress and coping that incorporates both attempts to prevent and combat stress. These authors noted that while most research and intervention models are devoted largely to strategies for combating stressors that are already under way, the importance of preventive measures needs to be considered as well. In an initial test of Matheny et al.'s (1986) taxonomy, McCarthy et al. (1997) found a differential role for the impact of preventive and combative types of coping resources on emotions experienced after relationship breakup with adults.

In their study, McCarthy et al. (1997) operationalized each of these constructs (preventive and combative coping resources) with scales from a comprehensive instrument designed to measure a broad range of coping resources, the Coping Resources Inventory for Stress (CRIS;

Matheny, Curlette, Aycock, Pugh, & Taylor, 1987). They found that self-confidence, a resource similar to Bandura's (1982) concept of self-efficacy, was one of the most important predictors of the ability to cope preventively. Other resources identified by McCarthy et al. (1997) as important for preventive coping included self-directedness, defined as the degree to which one respects their own judgment as a guide to behavior; and acceptance, which is a set of beliefs and behaviors indicating acceptance of self, others, and the world (Curlette, Aycock, Matheny, Pugh, & Taylor, 1992). Combative resources, which were also operationalized with relevant CRIS subscales, included: self-disclosure, which is a tendency to freely disclose one's feelings and thoughts; tension control, defined as the ability to lower arousal through relaxation procedures and thought control; and problem solving, which is the ability to use various strategies to resolve problems (Curlette et al., 1990). These results were replicated with persons taking a new job by McCarthy and Lambert (1999).

McCarthy and Lambert (1999) suggested that while these results seemed to support notions about the importance of prevention in human adjustment, the lack of established assessment instruments for measuring prevention was a major obstacle to further research. The purpose of the present study was to develop and provide evidence for the validity of an instrument designed to measure preventive resources based in part on the research reviewed above. Before presenting the results, we will briefly review the theoretical framework and research that guided its development.

The model illustrated in Figure 1 was suggested by both Matheny et al. (1986) and McCarthy et al. (1997); it draws mainly from the transactional model of stress and coping suggested by Lazarus and Folkman (1984).

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Insert Figure 1 About Here

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The stress literature has suffered for decades from imprecision in the use of terms (Seiffge-Krenke, 1995). Therefore, we will next attempt to both explain Figure 1 and clarify our use of terms. At the far left of Figure 1, an individuals' awareness that a demand exists is represented. Demands refer to requirements imposed by self or others that are potential stressors. They may come from numerous sources, including role requirements, life changes, hassles, or self-imposed requirements. Awareness of demands is also hypothesized to be influenced by one's preventive coping resources: persons with sufficient levels of such resources may be less likely to interpret demands as threatening and therefore avoid the stress response (McCarthy & Lambert, 1999).

As can be seen in Figure 1, awareness of the presence of a demand is followed by an appraisal of its potential threat. Folkman and Lazarus (1980) were among the first to distinguish between primary appraisals made about the seriousness of a demand and secondary appraisals of one's coping resources. If the primary appraisal about the seriousness and nature of a demand is perceived to be roughly equivalent to, or less than, one's secondary appraisal of their coping resources (represented in Figure 1 as $R \geq D$), demands are viewed as challenges and energize the person for optimal functioning. If, however, the demands are perceived to exceed the person's coping resources ($R < D$), the demands become stressors and trigger the stress response, which is defined as the syndrome of neurological and biochemical changes the body undergoes when confronted with stressors. Stress symptoms refer to a myriad of stress-endpoints including physiological, behavioral, and psychological components (depicted at the bottom of Figure 1). If

stressors are chronic, they can lead to a host of psycho-physiological disorders, including hypertension (Amigo, Buceta, Becona, & Bueno, 1991), ulcers (Sherman, 1994), and immune suppression (Antoni, 1987).

According to this perspective, after the stress response begins, the individual then taps their reservoir of combative coping resources in an attempt to find coping strategies that can lessen the intensity of the response and which have the potential for altering the situation. Combative coping resources were defined by Matheny et al. (1986) as those that tend to be drawn upon to alter or mitigate a stressor that is already being experienced, and coping strategies (or responses) are behaviors that occur *after* stressors have been engaged (Perlin & Schooler, 1978). Coping strategies have also been further distinguished in the literature as problem-focused (or active) and emotion-focused (or passive) (Folkman & Lazarus, 1988a). In this framework, problem-focused strategies are conceptualized as those aimed at influencing the nature of a demand whereas emotion-focused coping strategies are aimed at eliminating or lessening the stress response (see Figure 1). However, it should be noted that the above distinction in coping strategies is but one of numerous categorizations which have been suggested, which perhaps is a reflection of the varied ways in which both children and adults cope (Seiffge-Krenke 1995).

According to this model, then, the secret for healthy functioning is to build adequate coping resources and to acknowledge possession of them. The model described in Figure 1 also demonstrates the importance of preventive resources in at least two respects. First, possession of such resources may lead to proactive interpretations of life demands that negate the stress response altogether (McCarthy et al., 1997). Taylor and Brown (1988) have even suggested that such positive evaluations of one's capacities to influence events are both

characteristic of normal human thought and important for overall mental health. Secondly, preventive resources may allow one to deal proactively with situations that do become stressful so that the negative repercussions of stress are minimized (Aspinwall & Taylor, 1997).

However, only a fraction of the assessment instruments used in the literature assess coping resources (as defined above) and we are not aware of any that specifically attempt to measure resources useful mainly for the prevention of stress. Early stress instruments, including those developed for children and youth (Coddington, 1972), were measures of the cumulative effects of life events (Dohrenwend & Dohrenwend, 1974; Holmes & Rahe, 1967; Monaghan, Robinson, & Dodge, 1979; Sarason, Johnson, & Siegel, 1978). Because such measurements ignored the respondent's subjective appraisals, correlations of life events with stress symptoms, such as illness, were quite modest - usually in the .2 to .3 range (Rabkin & Struening, 1976). While later efforts attempted to take the respondent's perception of major life events into consideration (Derogatis, 1987; Dohrenwend, Krasnoff, Askenasy, & Dohrenwend, 1978), all of these measures only attended to one-half of the stress equation - namely, the measurement of perceived demands.

Other instruments have focused on coping strategies, rather than coping resources (Carver et al., 1989; Folkman & Lazarus, 1988b; McCrae, 1984; Stone & Neale, 1984). As indicated in Figure 1, coping strategies are behaviors that occur after stressors have been engaged (Perlin & Schooler, 1978). While the use of coping strategies can be an important component of adjustment, acquiring and developing sufficient levels of coping resources is important because they are useful before stressors occur and generally serve as the foundation for coping strategies used to lessen or negate the costs of dealing with demands (Wheaton, 1983).

Several instruments have been developed in recent years to measure adult perceptions of

coping resources. Moos, Cronkite, Billings, & Finney (1985) developed the Health and Daily Living Form, which measures multi-dimensional aspects of adaptation, including stressors, symptoms, and coping. Hammer and Marting (1988) developed the Coping Resources Inventory to measure five resources, cognitive, social, emotional, spiritual/philosophical, and physical, and reported adequate psychometric properties. Another comprehensive measure of adult coping resources that was described above is the CRIS (Matheny, et al., 1987), which reflects the results of extensive literature reviews and two meta-analyses (Matheny, Curlette, Aycock, & Junker, 1993).

Clearly there is a need to extend research on the assessment of coping resources to the realm of prevention. The purpose of this study was to provide evidence for the reliability and validity of an instrument designed to measure coping resources useful for prevention based on previous research by McCarthy et al. (1997), McCarthy & Lambert (1999), and Matheny et al. (1986): the Preventive Coping Resources Inventory (PCRI). Three main research questions were addressed: (1) examination of the construct validity of the PCRI, (2) exploration of the convergent and discriminant validity of the PCRI with related constructs, and (3) investigation of the criterion-related validity of PCRI as a predictor of perceived stress levels and symptomatology.

## Method

Participants Data were collected from 252 participants taking elective courses at a large, Southwestern university. The sample was 65% female and 35% male; 52% were seniors, 17 % were juniors, 13% were sophomores, and 17% were first years. Based on self-report, participants were 60% European American, 19% Asian American, 11% Hispanic, 4% African American, and 6% described themselves as "Other."

Procedures Participants were recruited from undergraduate educational psychology classes over the course of one semester. Those who gave consent to participate in the study were then given a demographics survey and the instruments described below.

Instrumentation

Preventive Coping Resources Inventory (PCRI). The Preventive Resources Inventory (PCRI), as it was used in this study, is a self-report measure that asked respondents to indicate their level of agreement with statements about personal habits relating to the prevention of stress. The responses were on a five point Likert scale ranging from "Strongly Disagree" to "Strongly Agree" concerning the extent to which specific prevention related statements describe them.

An initial pool of items for the PCRI was constructed by the authors using several steps. First, coping resources identified as preventive in nature in research by Matheny et al. (1986), McCarthy et al. (1997), and McCarthy and Lambert (1997) were identified. Second, a qualitative focus group interview using the Repertory Grid technique (see Lambert, Kirksey, Hill-Carlson, & McCarthy, 1997, for a discussion) was conducted with graduate counseling students involved in coping research to identify characteristics and personal qualities of persons judged to be effective preventive copers. Based on these steps, 80 items were written to measure the following preventive resources: self-confidence, personal organization and decision-making abilities, interpersonal skills, perceived control of one's life, and the ability to use humor.

Perceived Stress Scale (PSS). The PSS is a 14-item index designed to measure the degree to which situations in one's life are appraised as stressful (Cohen, Kamarck, & Mermelstein, 1983). Scale instructions ask respondents to report the degree to which they felt or thought certain things over the last month. The authors report coefficient alphas for scores on the scale between .84 and .86 in three different samples. Test-retest reliability over 2 days was .85

and over six weeks in a smoking cessation sample was .55. In this study, Cronbach's alpha for scores on the PSS was .87. Cohen et al. (1983) assessed the concurrent validity of scores from the PSS with two samples of college students and one sample of enrollees in a smoking cessation program and found correlations ranging from .52 to .76 between scores on the scale and reported depressive and physical symptomatology, social anxiety (a range of .37 to .48) and utilization of health services (.20).

Social Connectedness Scale (SCS). This 14-item scale (Lee & Robbins, 1995; Lee, Draper, & Lee, in press) measures the degree of interpersonal closeness that an individual experiences in his or her social world. The SCS was created from a factor analysis of items measuring belongingness. In the test validation sample composed of 313 college students, coefficient alpha was .91 for internal consistency and .96 for test-retest reliability calculated over a two-week interval. The validity of the SCS was supported with statistically significantly correlations with self-esteem, academic performance, and other measures of personality (Lee & Robbins, 2000).

Multidimensional Coping Inventory (COPE). – the COPE is a 50 –item multidimensional coping inventory designed to assess the different ways in which people respond to stress (Carver et al., 1989). Fives scales (of four items each) measure distinct aspects of problem-focused coping (active coping, planning, suppression of competing activities, restraint coping, seeking of instrumental social support), five scales measure aspects of emotion-focused coping (seeking of emotional social support, positive reinterpretation and growth, acceptance, denial, turning to religion) and three scales measure what might be termed ineffective coping strategies (focus on and venting of emotions, behavioral disengagement, mental disengagement). Additionally scales measure such dimensions as the use of humor to cope with stress.

In this study, combinations of the COPE scales measuring problem-focused, emotion-focused, and ineffective coping were used as part of the multi-trait, multi-method matrix. In addition, six subscales from the COPE (positive reinterpretation and growth, active coping, planning, seeking social support for instrumental reasons, seeking social support for emotional reasons, and humor) were used to examine bivariate correlations among factors and scales on the PCRI.

Carver et al. (1989) report coefficient alphas for the various COPE scales ranging from .45 to .92 and test – re-test reliabilities ranging from .42 to .89 among a college student sample. Evidence for the criterion related validity of the instrument was also found by Carver et al. (1989) with correlations between the various COPE scales and theoretically relevant personality dimensions.

Life Experiences Survey (LES). The LES is a 57-item self-report measure that allows respondents to indicate events that they have experienced during the past year (Sarason et al., 1978). The LES items were chosen to represent life changes frequently experienced by the average person and calls for respondents to rate separately the desirability and impact of events that they have experienced. They are thus asked to indicate those events experienced during the past year and to rate the perceived impact of the event on their life at the time of the occurrence on a 5-point scale (from "extremely negative" to "extremely positive"). Only events rated as extremely negative or moderately negative were used in this study and Sarason et al. (1978) report test re-test reliabilities for this scale ranging from .56 to .88. Sarason et al. (1978) also found that the negative life change score was related to a number of stress-related dependent measures.

The Hopkins Symptom Checklist – 21 (HCL-21): This 21-item instrument is designed to measure symptom distress. The three scales are: General feelings of distress, Somatic distress and Performance difficulty (Green, Walkey, McCormick & Taylor, 1988). A total distress score can also be calculated and therefore was used in this study. The 21-item HCL was derived through factor analysis from a longer inventory using samples of patients, nurses and college students in both America and New Zealand. A fourth sample was used to assess the instrument's reliability. The Cronbach's alphas for the scores were: Performance difficulty .85, Somatic distress .75, General feelings of distress .86, total distress score .90.

Coping Resources Inventory (CRI): The CRI is a 60-item self-report measure of a person's coping resources (Hammer & Marting, 1987). The CRI covers five domains of resources: Cognitive (COG), Social (SOC), Emotional (EMO), Spiritual/Philosophical (S/P), and Physical (PHY). The CRI yields scale scores for each of these domains as well as a Total Resource score. Participants respond to statements on a 4-point Likert scale (never or rarely, sometimes, often, and always or almost always).

The Cognitive scale addresses an individual's optimism about life and sense of self-worth. An example from this scale is, "I feel as worthwhile as anyone else." The Social scale measures how much the person feels a part of social networks that he or she can count on in times of stress and includes items such as, "I am part of a group, other than my family, that cares about me." The Emotional scale refers to an individual's ability to accept and express emotions. An item on this scale is, "I can cry when sad." The extent to which an individual is influenced by values from religion, traditions, or personal philosophy is addressed in the Spiritual/Philosophical Scale. Items on this scale include, "I know what is important in life." The Physical scale covers an individual's health-promoting behavior and includes items such as,

"I exercise vigorously 3-4 times a week." The authors report Cronbach's Alpha values ranging from .71 to .84 for the five scales and .91 for the Total Resources score. They report moderate intercorrelations ($r$ = .60 - .69) among the Social, Cognitive, and Emotional scales.

Self-Efficacy Scale (SES). The SES is a 30-item instrument that measures general expectations of self-efficacy that are not tied to specific situations or behavior (Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). The SES consists of two subscales, general self-efficacy and social self-efficacy. Sherer et al. (1982) report coefficient alphas of .86 for the general scale and .71 for the social scale with a sample of undergraduate students. Evidence for the criterion-related validity of the SES was suggested by its ability to discriminate among those who scored higher and lower in past vocational, educational, and monetary goals (Sherer et al., 1982). In that study, the SES also demonstrated construct validity with statistically significant correlations in predicted directions with measures of ego strength, interpersonal competency, and the Rosenberg Self-esteem Scale.

Analysis. To answer research question one, responses for the 80 items on the PCRI were analyzed using principal components analysis with varimax rotation in an attempt to identify the underlying dimensions of the instrument and to establish construct validity. To answer research question two, a multi-trait multi-method matrix was formed in an effort to demonstrate convergent and discriminant validity coefficients for the PCRI and related measures. Finally, to answer research question three, four hierarchical linear regression models were used to examine whether the PCRI scores were associated with measures of perceived stress, performance difficulty, feelings of distress, and overall symptomatology once total negative life events were accounted for.

# Results

## Research Question 1

To determine the number of factors to extract, a scree plot was used which graphically displays the relationship between eigenvalues and factors. The cutoff point for factor extraction is placed at the elbow of the graph. Typically, the elbow is located where the rate of change in eigenvalue variances drops precipitously, resulting in a consistency of negligible eigenvalue variances for subsequent factors. Many of the items either loaded on factors with very few items or did not load on any single factor. Subsequent analyses performed once these items had been dropped revealed three dimensions that were labeled Perceived Control, Self-Confidence, and Social Comfort. This solution accounted for 43.99% of the variance in the items.

This three-factor solution, using only a core set of 39 items, presented a pattern to the factor loadings that closely resembles simple structure. Table 1 displays all the factor loadings of .4 or greater. All items loaded at this magnitude or higher on only one factor with the exception of item 32, which shared some variance in common with both Self-Confidence and Social Comfort. In order to remain consistent with the theoretical foundation for the instrument, the item was retained and included on the Social Comfort factor. Of the items deleted from this solution, several were retained in scales that were labeled Self-Acceptance, Organization, and Humor. The Self-Acceptance items loaded across the three factors and were retained as a cross over scale. The Structuring and Humor items loaded on distinct constructs but due to the small numbers of items (five and four, respectively), were retained as scales that need may be considered for further refinement and possible expansion. The items for each of these scales are included in the appendix.

For both the factors and the scales, total scores were formed by taking the mean response across the items. Coefficient alpha reliability coefficients were calculated for each scale. For the factors, Perceived Control, comprised of 16 items, yielded an alpha of .898, Self-Confidence, comprised of 10 items, yielded an alpha of .885, and Social Comfort, comprised of 13 items, yielded an alpha of .860. The Self-Acceptance cross over scale had a coefficient alpha of .703 with 14 items, while Organization, five items, had an alpha equal to .788, and Humor, four items, showed an alpha of .795. The total score, Preventive Resources, comprised of 62 items, yielded an alpha of .946.

Research Question 2

A multi-trait multi-method matrix (Campbell & Fiske, 1959) was formed in an effort to demonstrate convergent and discriminant validity coefficients for each of the factors and scales. The respondents to the PCRI were asked to complete a measure of self-efficacy and a measure of social skills. The efficacy measure gives scale scores for both General and Social Efficacy and the SCS was used as a measure of social functioning. The COPE, which yields Problem Focused, Emotion Focused, and Ineffective Coping Strategies scale scores, was included as a way of measuring the strategies employed by individuals once a specific stressor has been encountered. These measures were used to represent constructs, while related to preventive resources and coping in general, were not seen as measuring the exact same construct as the PRI. A measure of Coping Resources, which yields scores for Emotional, Spiritual, Physical, Cognitive, and Social Coping Resources, was included as a way of measuring a similar construct with a different method and measure. Therefore, it was predicted that the correlations between measures of similar constructs on the PCRI and the Coping Resources instrument would be higher than any others in the matrix.

This pattern was observed and can be seen in Table 2. For example, the Perceived Control factor correlated .472 with General Efficacy and .402 with Problem Focused Coping, but .531 with Cognitive Coping Resources. Similarly, while Self-Confidence correlated .342 with General Efficacy and .273 with Problem Focused Coping, it correlated .411 with Cognitive Coping Resources. While Social Comfort correlated .424 with Social Efficacy, .550 with Social Skills, and .421 with Emotion Focused Coping Strategies, it correlated at .595 with Emotional Resources, .450 with Spiritual Resources, and .588 with Social Resources. Also, while Self-Acceptance correlated at .348 with Social Skills and .304 with Problem Focused Coping Strategies, it correlated most highly with Cognitive Coping Resources, .409. All of these correlations between the PRI and the Coping Resources scores represent concurrent validity coefficients and are examples of convergent validity.

Table 2 also contains many examples of discriminant validity. For example, the PCRI scales do not correlate very highly with the Ineffective Coping Strategies scale, with none of the coefficients having an absolute value greater than .19. By following down the columns of the table, the highest correlations between the PCRI factors and scales fall exactly where they would be predicted to fall and most of the other coefficients which are not bolded in each column are relatively smaller, if not less than .4. For example, Perceived Control and Organization correlate most highly with General Efficacy while no other correlations in that column exceed .4.

Similarly, Social Comfort correlates with social connectedness at .550 while no other coefficients in that column exceed .5. A similar pattern can be seen in each column, thereby offering discriminant validity coefficients between the PCRI and each of the measures in the matrix. Table 3 shows the correlations between selected Coping Strategies Subscales and the PCRI factors and scales. A very similar pattern emerged with the exception of the Humor scale

that correlated at .586 with the Humor coping strategy scale from the COPE. This was the highest correlation in the matrix for the PCRI Humor scale, suggesting that there may be little difference between the constructs of humor as a coping strategy and humor as a preventive resource.

Research Question 3

Hierarchical linear regression models were then tested as a way to examine whether the PCRI scores were associated with measures of perceived stress and psychological distress in the same respondents. Each model first controlled for reported total negative life events from the LES. This first step attempted to control for the variance in perceived stress and psychological distress that could be associated with the variability in the sample with respect to recent life events of a stressful nature. As was described above, in responding to the LES, participants were asked to rate the level of impact that each stressful event had on their life. If a respondent reported that the event had no impact or positive impact, these events were not included in the score.

The total Negative Life Events (NLE) scale was correlated with all four outcome measures, Total Perceived Stress, Performance Difficulty, General Feelings of Distress, and the Total Hopkins Score. These relationships were moderate is strength, ranging from $r = .311$ to .359, and were all statistically significant. Prior to running each model, bivariate correlations were calculated between the PCRI factor scores and the four outcome measures. All of these correlations were statistically significant ($p < .001$). Table 4 reports these values.

Table 5 reports the standardized beta weights and variance accounted for statistics for each step in each model. The second step in each model tested for an association between the PCRI factors and the outcome measures after controlling for Total Negative Life Events. The

Perceived Control factor was negatively associated with all the outcomes and showed statistically significant ($p < .05$) negative associations with two of the four outcomes measures in step two. Self-Confidence was negatively associated with all four outcome measures as well, and was associated at a statistically significant level ($p < .05$) for three of the measures. The Social Comfort factor did not show a statistically significant association with any of the outcomes. The PCRI factor scores accounted for a statistically significant increase ($r = .055 - .211$) in the variance accounted for, after controlling for Negative Life Events, for all of the outcome measures.

## Discussion

Clearly there is a need to extend the work on assessing coping that has already been conducted to the realm of prevention. In the current climate of budgetary shortfalls for health care provision there is every reason to believe that both the public and the profession of counseling are waking up to the importance of preventing human problems in living. As evidence of such a professional awakening, a recent issue of The Counseling Psychologist (Prevention in counseling psychology, 2000) was devoted to prevention in counseling psychology and a forthcoming issue of the Journal for Specialists in Group Work will be devoted to group prevention efforts. As Albee (2000) points out, "It is accepted public health doctrine that no disease or disorder has ever been treated out of existence" (p. 847). The results of this study provide evidence that the PCRI may be a reliable measure of dimensionally distinct types of coping resources that are useful for preventing stress.

The factor analysis conducted in this study supported the construct validity of three of the six hypothesized preventive resources: perceived control, self-confidence, and social comfort. Each of these resources has been connected in previous research to prevention efforts. A sense

of control over one's life is said to be the most effective buffer between potential stressors and stress symptoms (Antoni, 1987; McCabe & Schneiderman, 1985; Sapolsky, 1994). Efficacious feelings about the self have been described as "anxiety-buffers" in daily life, with research indicating that persons with high self-esteem cope better than those with low self-esteem (Greenberg, Pyszcynski, Burling, Simon, Solomon, Rosenblatt, Lyon, & Pinel, 1992). And an impressive body of literature also suggests that one's social network can mediate the effects of life demands on health and well-being (for reviews, see Berkman, 1985; Cohen & Wills, 1985).

Further research is needed to clarify whether the three scales not supported in the factor analysis, Self-Acceptance, Organization, and Humor, should be included as dimensions of preventive coping resources. As was the case with the preventive resource scales that emerged as factors, support for each as a preventive resource exists in the literature. Acceptance, as operationalized on the PCRI, taps a set of beliefs and behaviors indicating acceptance of self, others, and the world. Such attitudes can have lead to more adaptive evaluations of life demands at the appraisal stage (see Figure 1), making it less likely that an individual will unnecessarily escalate to the stress response when it is not called for (Taylor & Brown, 1988). Organizational and planning skills are essential components of daily life in modern society (McCarthy & Lambert, 1999) and the importance of humor as a resource is widely acknowledged, particularly in work settings (Dwyer, 1991; Kahn, 1989).

The overall pattern to the convergent and discriminant validity coefficients showed that many of the highest correlations in the matrices are exactly as predicted. In general, the factor and scale scale scores of the PCRI correlated higher with coping resources than with other closely related constructs such as efficacy or coping strategies. However, some of the results of the multitrait multimethod analysis (see Table 2) showed mixed support for the convergent validity of the

acceptance and organization scales. While it might be predicted that acceptance, as the more global of the three scales that did not emerge cleanly as factors, would have the highest correlation with scales measuring overall interpersonal and cognitive functioning such as the SCS and the Cognitive and Social coping resource scales from the CRI, it was surprising that it also had the highest correlation with general problem-focused coping strategies from the COPE. However, the correlation of Organization with problem-focused coping was only slightly lower ($r$ = .292 as opposed to .304 for self-acceptance). The organization scale also had the highest correlation with General self-efficacy from the SES and the Emotional coping resource scale from the CRI.

Due to restrictions in the measures, methods, and population used, caution should be observed before generalizing the results of this study. First, the sample was relatively homogenous with respect to race and educational background. Additionally, participants were recruited from education classes and a more diverse sample would be necessary to generalize the results of this study. Also, caution is warranted in interpreting the results of self-report methodology that may or may not correspond closely with the actual behaviors and strategies used by the study participants in managing stress.

Overall, however, our findings suggest that the PCRI may provide three meaningful, distinct, and interpretable factors useful for preventive coping: perceived control, self-confidence, and social comfort. Further research is needed to determine if three additional scales, self-acceptance, organization, and humor, also represent meaningful factors. Additionally, further exploration is necessary to determine if the scales on the PCRI are truly distinct from other coping instruments in measuring resources that are most useful for prevention. This might be accomplished in naturalistic settings in which scores on the PCRI are

used to predict whether or not individuals are able to prevent stress during times of exposure to life demands such as the transition to a new school or work setting.

References

Albee, G. W. (2000). Commentary on prevention and counseling psychology. The Counseling Psychologist, 28, 845-853.

Amigo, I., Buceta, J. M., Becona, E., & Bueno, A. M. (1991). Cognitive behavioural treatment for essential hypertension; A controlled study. Stress Medicine, 7 (2), 103-108.

Antoni, M. A. (1987). Neuroendocrine influences in psychoimmunology and neoplasia: A review. Psychology and Health, 1, 3-24.

Antonovsky, A. (1979). Health, stress, and coping. San Francisco: Josey-Bass.

Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. Psychological Bulletin, 121(3), 417 - 436.

Bandura, A. (1982). Self-efficacy mechanisms in human agency. American Psychologist, 37, 122-147.

Berkman, L. F. (1985). The relationship of social networks and social support to morbidity and mortality. In S. Cohen & S. L. Syme (Eds.), Social support and health (pp. 241-262). Orlando, FL: Academic Press.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multi-trait-multi-method matrix. Psychological Bulletin, 56, 81-105.

Carver, C., Scheier, M., & Weintraub, J. (1989). Assessing coping strategies: A theoretically based approach. Journal of Personality and Social Psychology, 56, 267-283.

Coddington, R. D.. (1972). The significance of life events as etiologic factors in the diseases of children: A survey of professional workers. Journal of Psychosomatic Research, 16, 7-18.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Curlette, W. L., Aycock, D. W., Matheny, K. B., Pugh, J. L., & Taylor, H. F. (1992). Coping Resources Inventory for Stress manual. Atlanta, GA: Health Prisms.

Derogatis, L. R. (1987). The Derogatis Stress Profile: A quantification of psychological status. Advances in Psychosomatic Medicine: Research Paradigm in Psychosomatics, 17, 30 - 54.

Dohrenwend, B. S., & Dohrenwend, B. P. (Eds.). (1974). Stressful life events: Their nature and effects. New York: Wiley.

Dohrenwend, B. S., Krasnoff, L., Askenasy, A. R., & Dohrenwend, B. P. (1978). Exemplification of a method for scaling life events: The PERI Life Events Subtest. Journal of Health and Social Behavior, 19, 205 - 229.

Dwyer, T. (1991). Humor, power, and change in organizations. Human Relations, 44, 1-19.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior, 21, 219-239.

Folkman, S., & Lazarus, R. S. (1988a). Coping as a mediator of emotion. Journal of Personality and Social Psychology, 54, 466 - 475.

Folkman, S., & Lazarus, R. S. (1988b). The relationship between coping and emotion: Implications for theory and research. Social Science Medicine, 26, 309 - 317.

Green, D. E., Walkey, F. H., McCormick, I. A., Taylor, A. J. W. (1988). Development and evaluation of a 21-item version of the Hopkins Symptom Checklist with New Zealand and United States respondents. Australian Journal of Psychology, 40, 61-70.

Greenberg, J., Pyszcynski, T., Burling, J., Simon, L., Solomon, S., Rosenblatt, A., Lyon, D., & Pinel, E. (1992). Why do people need self-esteem? Converging evidence that self-esteem serves an anxiety buffering function. Journal of Personality and Social Psychology, 63, 913-922.

Greenglass, E. R., & Burke, R. J. (1991). The relationship between stress and coping among Type As [Special issue: Handbook on job stress]. Journal of Social Behavior and Personality, 6, 361-373.

Hammer, A. L., & Marting, M. S. (1988). Coping Resources Inventory Manual. Palo Alto, CA: Consulting Psychologist Press.

Harish, J. Seattle a lesson in safety for India. (2001, March 6, 2001). Seattle Post-Intelligencer.

Holmes, T. H.., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Kahn, W. A. (1989). Toward a sense of organizational humor: Implications for organizational diagnosis and change. The Journal of Applied Behavioral Science, 25, 45-63.

Lambert, R. G., Kirksey, M., Hill-Carlson, M., & McCarthy, C. J. (April, 1997). The repertory grid as a qualitative interviewing technique for use in survey development. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Ill.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Lee, R.M., Draper, M., & Lee, S. (in press). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. Journal of Counseling Psychology.

Lee, R.M. & Robbins, S.B. (1995). Measuring belongingness: The social connectedness and the social assurance scales. Journal of Counseling Psychology, 42 (2), 232-241.

Lee, R.M. & Robbins, S.B. (2000). Understanding social connectedness in college women and men. Journal of Counseling and Development, 18 (4), 484-491.

Matheny, K.B., Aycock, D.W., Pugh, J.L., Curlette, W.L., & Canella, K.A. (1986). Stress coping: A qualitative and quantitative synthesis with implications for treatment. The Counseling Psychologist, 14(4), 499-549.

Matheny, K., Curlette, W., Aycock, D.W., & Junker, G. (1993). The Coping Resources Inventory for Stress: A measure of perceived resourcefulness. Journal of Clinical Psychology, 49(6), 815-830.

Matheny, K.B., Curlette, W.L., Aycock, D.W., Pugh, J.L., & Taylor, H.F. (1987). The Coping Resources Inventory for Stress. Atlanta: Health Prisms, Inc.

McCabe, P., & Schneiderman, N. (1985). Psychophysiologic reactions to stress. In N. Schneiderman & J. Tapp, (Eds.), Behavioral medicine: The biopsychosocial approach (pp. 24-25). New Jersey: Erlbaum.

McCarthy, C. J., & Lambert, R. G. (1999). Structural model of coping and emotions produced by taking a new job. Journal of Employment Counseling, 36, 50 – 66.

McCarthy, C. J., Lambert, R., & Brack, G. (1997). Structural model of coping, appraisals, and emotions after relationship breakup. Journal of Counseling and Development, 76(1), 53-64.

McCrae, R. R. (1984). Situational determinants of coping responses: Loss, threat, and challenge. Journal of Personality and Social Psychology, 46, 919 - 928.

Monaghan, J., Robinson, J., & Dodge, J. (1979). The Children's Life Events Inventory. Journal of Psychosomatic Research, 23, 63 - 68.

Moos, R. H., Cronkite, R. C., Billings, A. B., & Finney, J. W. (1985). Health and daily living form. Palo Alto, CA: Social Ecology Laboratory.

Ogus, E. D. (1992). Burnout and coping strategies: A comparative study of ward nurses. Journal of Social Behavior and Personality, 7, 111-124.

Perlin, L. I. & Schooler, C. (1978). The structure of coping. Journal of Health and Social Behavior, 19 , 2-21.

Prevention in Counseling Psychology. (2000). The Counseling Psychologist, 28.

Rabkin, J. G., & Struening, E. L. (1976). Life events, stress, and illness. Science, 194, 1013 - 1020.

Roche, S. E., & Sadoski, P. J. (1996). Social action for battered women. In A. R. Roberts (Ed.), Helping battered women: New perspectives and remedies (pp. 13-30). New York: Oxford University Press.

Romano, J. L., & Hage, S. M. (2000). Prevention and counseling psychology: Revitalizing commitments for the 21st century. The Counseling Psychologist, 28, 733-763.

Sapolsky, R. M. (1994). Why zebras don't get ulcers: A guide to stress, stress-related diseases, and coping. New York: W. H. Freeman and Company.

Saraşon, I., Johnson, J., & Siegel, J. (1978). Assessing the impact of life changes: Development of the Life Experiences Survey. Journal of Consulting and Clinical Psychology, 46, 932 - 946.

Seiffge-Krenke, I. (1995). Conceptual approach for studying stress, coping, and relationships in adolescence. In I. Seiffge-Krenke (Ed.). Stress, coping, and relationships in adolescence (pp. 26 - 44). Mahwah, NJ: Erlbaum.

Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. Psychological Reports, 51, 663-671.

Sherman, C. (1994). Stress: How to help patients cope. The Physician and Sportsmedicine, 22(7), 66 - 75.

Stone, A., & Neale, J. (1984). New measure of daily coping: Development and preliminary results. Journal of Personality and Social Psychology, 46, 892 - 906.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. Psychological Bulletin, 103, 193-210.

Wheaton, B. (1983). Stress, personal coping resources, and psychiatric symptoms: An investigation of interactive models. Journal of Health and Social Behavior, 24, 208 - 229.

# Appendix

## Items loading on exploratory PCRI scales: Self-acceptance, organization, and humor

### Self-acceptance

Frustration is a part of life.

I may not always get what I want.

I have limitations.

I believe that the difficulties I am facing will not last forever.

I can adapt to change.

I can usually see many ways to attack a problem.

I know when I need to "go with the flow" to prevent a situation from becoming stressful.

I know how to learn from my mistakes.

I know my own limits.

I keep failures and difficulties in perspective.

I know that I can't be all things to all people.

Because my life is balanced, problems in one area of my life don't unduly affect my overall happiness.

I do not take myself too seriously.

I know who I am.

Items loading on exploratory PCRI scales: Self-accepta

Organization

I can stay organized under pressure.

By organizing and planning my day, I am usually able to kee

I am able to reduce my daily demand level by planning ahead

I can complete most of the tasks I begin.

I stay organized.

Humor

I use humor to put others at ease.

My sense of humor helps keep my stress level under control.

I use humor to keep difficulties from becoming stressful.

I can laugh at myself.

- continued

s: Self-acceptance, organization, and humor

lly able to keep my daily demands under control.

planning ahead.

under control.

g stressful.

Table 1

Factor analysis results for the PCRI

| Item # | Item | PCN | CON | SOC |
|---|---|---|---|---|
| 1 | I know how to think about situations in a positive way | 0.472 | | |
| 2 | I know how to handle stress | 0.566 | | |
| 3 | I know how to pick the right coping strategy for the right situation | 0.577 | | |
| 4 | I am confident in my ability to anticipate and avoid many sources of stress | 0.541 | | |
| 5 | I am a flexible person | 0.384 | | |
| 6 | I am able to prevent stress by being clear about my priorities | 0.694 | | |
| 7 | I can find the bright side of most situations | 0.509 | | |
| 8 | I know how to keep my options open | 0.551 | | |
| 9 | I see problems as opportunities to grow and learn | 0.546 | | |
| 10 | I am able to avoid causing myself stress by keeping things in perspective | 0.663 | | |
| 11 | I am able to avoid stress by accepting my responsibilities rather than avoiding them | 0.673 | | |
| 12 | I am able to reduce the stress in my life by focusing on my values | 0.614 | | |
| 13 | I am able to reduce the stress in my life by focusing on my priorities | 0.687 | | |
| 14 | I have goals that keep me focused | 0.362 | | |
| 15 | I know how to delegate tasks to others | 0.347 | | |
| 16 | I am able to divide tasks with others in a way that benefits others | 0.387 | | |

Table continues.

Table 1 (Continued)

Factor analysis results for the PCRI

| Item # | Item | PCN | CON | SOC |
|---|---|---|---|---|
| 17 | I can handle most things | | 0.724 | |
| 18 | I can handle stressful situations | | 0.738 | |
| 19 | I usually succeed at whatever I try | | 0.707 | |
| 20 | I have strengths which allow me to overcome obstacles | | 0.700 | |
| 21 | I can trust my own judgment | | 0.622 | |
| 22 | I know what is best for me | | 0.536 | |
| 23 | I can solve most of the problems I face | | 0.728 | |
| 24 | I can learn new tasks | | 0.608 | |
| 25 | If I fail in one situation, I know I can still succeed in other situations | | 0.521 | |
| 26 | I am in control of my life | | 0.556 | |

Table continues.

Table 1 (Continued)

Factor analysis results for the PCRI

| Item # | Item | PCN | CON | SOC |
|---|---|---|---|---|
| 27 | I know how to make social situations more comfortable | | | 0.486 |
| 28 | I know how to make others feel comfortable | | | 0.511 |
| 29 | I have friends and relatives who can help me avoid trouble in my life | | | 0.425 |
| 30 | I have others to call upon when needed | | | 0.650 |
| 31 | I lead a well-rounded life | | | 0.475 |
| 32 | I form mutually beneficial relationships with others | | 0.422 | 0.430 |
| 33 | I have mutually supportive relationships | | | 0.674 |
| 34 | I accept the input of others | | | 0.570 |
| 35 | I am able to use constructive criticism | | | 0.413 |
| 36 | I ask for help | | | 0.656 |
| 37 | Other people consider me helpful | | | 0.430 |
| 38 | I can communicate my need to others | | | 0.712 |
| 39 | I am able to ask for emotional support | | | 0.680 |

Note. Factor loadings less than .4 are not displayed except when they represent the highest loading among the factors; PCN = Perceived Control, CON = Self-Confidence, SOC = Social Comfort.

Table 2

Multitrait Multimethod Matrix for the PCRI and measures of self-efficacy, social functioning, coping strategies, and coping resources.

| | Construct | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Efficacy | | Social Functioning | General Coping Strategies | | | Coping Resources | | | | |
| Measure | SES-G | SES-S | SCS | Problem Focused | Emotion Focused | Ineffective Coping | Emotional | Spiritual | Physical | Cognitive | Social |
| PRI Factors | | | | | | | | | | | |
| Per. Control | **0.472** | 0.372 | 0.468 | **0.402** | 0.320 | -0.143 | 0.428 | 0.370 | **0.314** | **0.531** | 0.442 |
| Self-Confidence | 0.342 | 0.162 | 0.294 | 0.273 | 0.098 | -0.187 | 0.259 | 0.160 | 0.161 | 0.411 | 0.309 |
| Social Comfort | 0.299 | **0.424** | **0.550** | 0.386 | **0.421** | 0.068 | **0.595** | **0.450** | 0.230 | 0.519 | **0.588** |
| PRI Scales | | | | | | | | | | | |
| Self-Acc. | 0.295 | 0.211 | **0.348** | **0.304** | 0.167 | -0.072 | 0.326 | 0.196 | 0.161 | **0.409** | **0.354** |
| Organization | **0.392** | 0.168 | 0.250 | 0.292 | 0.216 | -0.090 | **0.365** | 0.279 | 0.258 | 0.313 | 0.304 |
| Humor | -0.034 | 0.199 | 0.224 | 0.138 | 0.123 | 0.145 | 0.182 | 0.077 | 0.093 | 0.198 | 0.258 |
| Total Score | 0.421 | 0.363 | 0.499 | 0.415 | 0.317 | -0.081 | 0.495 | 0.366 | 0.282 | 0.554 | 0.514 |

Note. All correlations greater than .124 are statistically significant at alpha = .05 for n = 252; the highest values among the factors and scales are bolded unless none were greater than .3; SCS-G = Self-efficacy general scale, SCS-S = Self-efficacy social scale, SCS = Social Connectedness Scale.

Table 3

Correlations of the PCRI with selected coping strategy scales from the COPE.

| PCRI | COPE Scales | | | | | |
|---|---|---|---|---|---|---|
| Factors | R/G | Active | Planning | SSP – I | SSP-E | Humor |
| PCN | **0.545** | **0.349** | **0.420** | 0.280 | 0.154 | 0.110 |
| CON | 0.238 | 0.238 | 0.309 | 0.096 | 0.009 | 0.118 |
| SOC | 0.437 | 0.245 | 0.376 | **0.425** | **0.455** | 0.167 |
| Scales | | | | | | |
| ACC | **0.387** | 0.183 | 0.277 | 0.172 | 0.124 | 0.191 |
| ORG | 0.244 | 0.246 | **0.348** | 0.245 | 0.198 | -0.015 |
| HUM | 0.270 | 0.020 | 0.128 | 0.156 | 0.129 | **0.586** |
| Total Score | 0.494 | 0.307 | 0.426 | 0.314 | 0.242 | 0.209 |

Note. All correlations greater than .124 are statistically significant at alpha = .05 for n = 252. The highest values among the factors and scales are bolded unless none were greater than .3, PCN=Perceived Control, CON=Self-Confidence, SOC=Social Support, ACC = self-acceptance, ORG = organization, HUM = Humor, R/G = reinterpretation/growth scale (COPE), active = active planning scale (COPE), planning = planning scale (COPE), SSP-I = seeking social support – instrumental scale (COPE), SSP-E = seeking social support – emotional scale (COPE), humor = humor scale (COPE).

Table 4

Correlations between PCRI factors and Measures of Perceived Stress and Symptomatology.

| Outcome Measures | PCN | CON | SOC |
|---|---|---|---|
| Perceived Stress | -0.504 | -0.391 | -0.301 |
| Performance Difficulty (HCL) | -0.237 | -0.246 | -0.104 |
| General Feelings of Distress (HCL) | -0.370 | -0.309 | -0.287 |
| Total HCL Score | -0.304 | -0.275 | -0.205 |

Note. $p<.001$ for all values. PCN=Perceived Control, CON=Self-Confidence, SOC=Social Support, HCL = Hopkins Checklist.

Table 5.

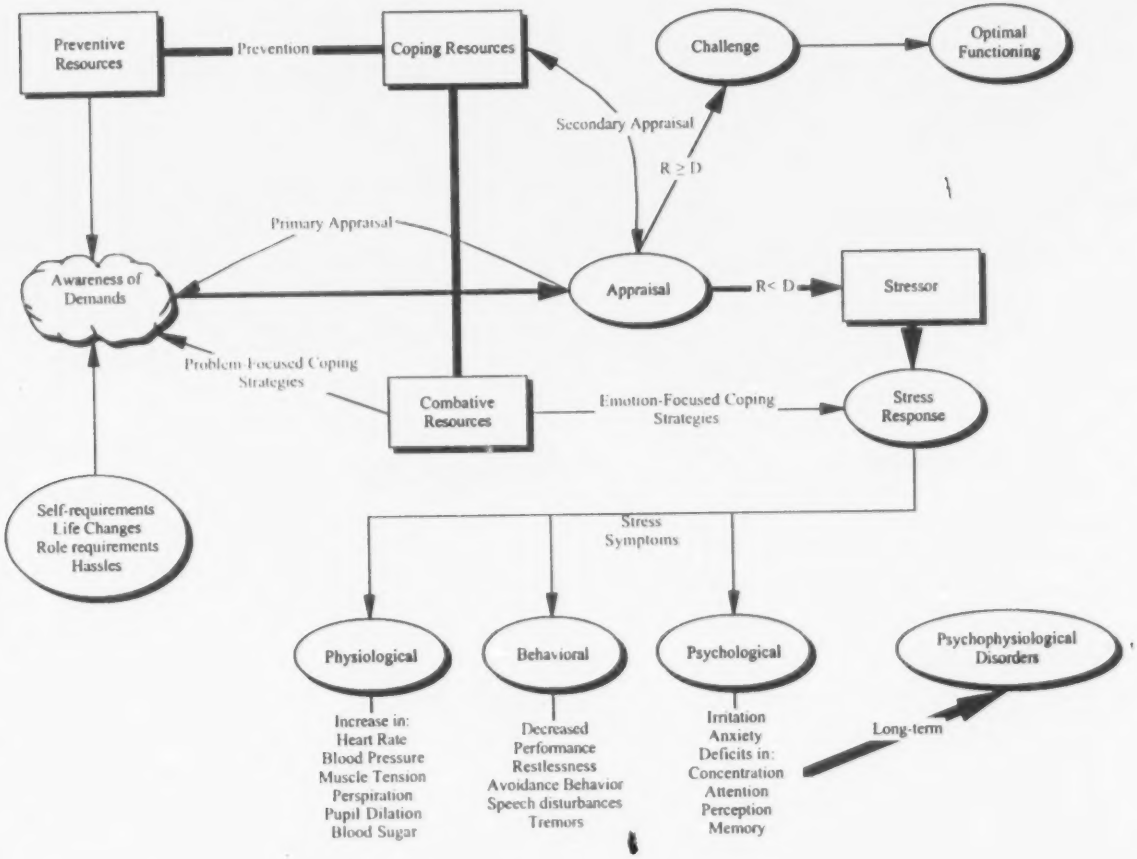
Results of hierarchical regression models.

| | Step 1 | | Step 2 | | | | |
|---|---|---|---|---|---|---|---|
| Outcome Measure | NLE | $\Delta r^2$ | NLE | PCN | CON | SOC | $\Delta r^2$ |
| Total Perceived Stress | .359*** | .129*** | .277*** | -.402*** | -.138** | .054 | .211*** |
| Performance Difficulty | .324*** | .105*** | .289*** | -.125 | -.191** | .095 | .055*** |
| General Feelings of Distress | .311*** | .097*** | .261*** | -.188** | -.120* | -.085 | .116*** |
| Total Hopkins Score | .342*** | .117*** | .302*** | -.147* | -.148** | -.010 | .074*** |

Note. All values are standardized beta weights. *= p <.1. ** = p <.05, *** = p <.001, **=p<.05; NLE = negative life events score from the LES; PCN=Perceived Control, CON=Self-Confidence, SOC=Social Support.

Figure 1

Hypothesized model of prevention in stress and coping.

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